

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A surgical apparatus, comprising:
~~a surgical instrument including a housing and a cannula, the a cannula attached at a proximal end to the housing and~~ defining at a distal end thereof an opening ~~and the housing containing;~~
a drive interface;
an electrical interface; and
a surgical tool including a shaft and a tip, the tip located in the opening and including ~~at least one~~ a non-mechanically-cutting conducting portion and a non-conducting cutting edge, the shaft contained within the cannula and the shaft mechanically and electrically coupled at a distal end to the tip, and at a proximal end, to the drive interface and ~~[[an]]~~ the electrical interface, and the drive interface producing a surgical motion of the tip, and the electrical interface producing a cauterizing action at the ~~at least one~~ conducting portion of the tip.

2-6. (Cancelled)

7. (Currently amended) The surgical apparatus of claim 1, wherein the tip includes ~~at least one~~ a non-conducting portion, and wherein the shaft is electrically coupled to the ~~at least one~~ conducting portion.

8. (Currently amended) The surgical apparatus of claim 7, wherein the ~~at least one~~ conducting portion defines ~~at least one~~ an exposed convex tip surface and the non-conducting portion defines ~~at least one~~ a concave tip surface.

9. (Currently amended) The surgical apparatus of claim 7, wherein the ~~at least one~~ conducting portion defines ~~at least one~~ an exposed concave tip surface and the non-conducting portion defines ~~at least one~~ a convex tip surface.

10. (Currently amended) The surgical apparatus of claim 7, wherein the ~~at least one~~ non-conducting portion defines a first exposed surface of the tip, and the ~~at least one~~ conducting portion extends from ~~at least one~~ a location internal to the tip through the ~~at least one~~ non-conducting portion to define a second exposed surface of the tip.

11. (Withdrawn) The surgical apparatus of claim 10, wherein the at least one conducting portion extends from a single location internal to the tip.

12. (Withdrawn) The surgical apparatus of claim 10, wherein the at least one conducting portion extends from multiple locations internal to the tip.

13. (Currently amended) The surgical apparatus of claim 10, wherein the ~~at least one~~ conducting portion extends at an angle to a longitudinal axis of the tip to define ~~at least one~~ a disk.

14. (Withdrawn) The surgical apparatus of Claim 10, wherein the second exposed surface extends in a diametric arc about a longitudinal axis of the tip.

15. (Withdrawn) The surgical apparatus of Claim 10, wherein the second exposed surface extends in an arc along a longitudinal axis of the tip.

16. (Withdrawn) The surgical apparatus of Claim 10, wherein the second exposed surface defines at least one point source.

17. (Withdrawn) The surgical apparatus of claim 10, wherein the second exposed surface defines at least one cutting edge of the tip.

18. (Original) The surgical apparatus of claim 1, wherein a substantial portion of a surface of the shaft is conductive, thus forming an electrical coupling between the electrical interface and the tip.

19. (Cancelled)

20. (Currently amended) A cutting and cauterizing device for connection to a surgical instrument, the surgical instrument including a drive interface and a first interconnector, the cutting and cauterizing device comprising:

a cannula defining at a distal end thereof an opening;

a second interconnector, suitable for switchably coupling to a power supply, the second interconnector located at the proximal end of the cannula and shaped to couple to the first interconnector; and

a surgical tool including a shaft and a tip, the tip located in the opening and including at least one a non-mechanically-cutting conducting portion and a non-conducting cutting edge, the shaft contained within the cannula, the shaft coupled at a distal end to the tip and at a proximal end shaped to mechanically couple ~~coupled couple~~ to the drive interface to permit a surgical motion of the tip, and the shaft electrically coupled to the second interconnector to permit a cauterizing action at the ~~at least one~~ conducting portion of the tip.

21-23. (Cancelled)

24. (Currently amended) The cutting and cauterizing device of claim 20, wherein the tip includes ~~at least one~~ a non-conducting portion, and wherein the shaft is electrically coupled to the ~~at least one~~ conducting portion.

25. (Currently amended) The cutting and cauterizing device of claim 24, wherein the ~~at least one~~ conducting portion defines ~~at least one~~ an exposed convex tip surface and the non-conducting portion defines ~~at least one~~ a concave tip surface.

26. (Currently amended) The cutting and cauterizing device of claim 24, wherein the ~~at least one~~ conducting portion defines ~~at least one~~ an exposed concave tip surface and the non-conducting portion defines ~~at least one~~ a convex tip surface.

27. (Currently amended) The cutting and cauterizing device of claim 24, wherein the ~~at least one~~ non-conducting portion defines a first exposed surface of the tip, and the ~~at least one~~ conducting portion extends from ~~at least one~~ a location internal to the tip through the ~~at least one~~ non-conducting portion to define a second exposed surface of the tip.

28. (Withdrawn) The cutting and cauterizing device of claim 27, wherein the at least one conducting portion extends from a single location internal to the tip.

29. (Withdrawn) The cutting and cauterizing device of claim 27, wherein the at least one conducting portion extends from multiple locations internal to the tip.

30. (Withdrawn) The cutting and cauterizing device of claim 27, wherein the at least one conducting portion extends at an angle to a longitudinal axis of the tip to define at least one disk.

31. (Withdrawn) The cutting and cauterizing device of claim 27, wherein the second exposed surface extends in a diametrical arc about a longitudinal axis of the tip.

32. (Withdrawn) The cutting and cauterizing device of claim 27, wherein the second surface extends in an arc along a longitudinal axis of the tip.

33. (Withdrawn) The cutting and cauterizing device of claim 27, wherein the second exposed surface defines at least one point source.

34. (Withdrawn) The cutting and cauterizing device of claim 27, wherein the second exposed surface defines at least one cutting edge of the tip.

35. (Original) The cutting and cauterizing device of claim 1, wherein a substantial portion of a surface of the shaft is conductive, thus forming an electrical coupling between the electrical interface and the tip.

36. (Cancelled)

37. (Original) A method of performing a surgical procedure, comprising using the surgical apparatus of claim 1 in the course of performing the surgical procedure.

38. (Original) A method of performing a surgical procedure, comprising using the cutting and cauterizing device of claim 20 in the course of performing the surgical procedure.

39. (Currently amended) The surgical apparatus of claim 1, wherein the ~~at least one~~ conducting portion is located on the tip in a position allowing cauterization of tissue, that has been operated on by surgical motion of the tip, without moving the instrument after operating on the tissue with the surgical motion of the tip.

40. (Currently amended) The surgical apparatus of claim 1, wherein the ~~at least one~~ conducting portion is located on the tip in a position allowing cauterization of tissue substantially immediately after the tissue has been operated on by surgical motion of the tip.

41. (Cancelled)

42. (Currently amended) The surgical apparatus of claim 20, wherein the ~~at least one~~ conducting portion is located on the tip in a position allowing cauterization of tissue, that has been operated on by surgical motion of the tip, without moving the instrument after operating on the tissue with the surgical motion of the tip.

43. (Currently amended) The surgical apparatus of claim 20, wherein the ~~at least one~~ conducting portion is located on the tip in a position allowing cauterization of tissue substantially immediately after the tissue has been operated on by surgical motion of the tip.

44. (Cancelled)

45. (Currently amended) A method of performing surgery, the method comprising:
providing an instrument, including a distal portion for operating on tissue, the distal portion including a non-mechanically-cutting conducting portion and a non-conducting cutting edge;

producing a surgical motion of the conducting portion and the non-conducting edge, thereby surgically operating on tissue with the non-conducting edge;

delivering electric energy to at least the conducting portion; and

applying ~~at least~~ the conducting portion to the surgically operated tissue to produce a cauterizing action using the delivered electric energy.

46. (Currently amended) The method of claim ~~[[45]]~~ 45, wherein the cauterizing action at the surgically operated tissue is produced without moving the instrument after surgically operating on the tissue.

47. (Currently amended) The method of claim ~~[[45]]~~ 45, wherein the cauterizing action at the surgically operated tissue is produced substantially immediately after surgically operating on the tissue.

48. (Cancelled)

49. (Previously presented) The surgical apparatus of claim 1, wherein all mechanical cutting edges on the tip are non-conducting.

50. (Previously presented) The surgical apparatus of claim 1, wherein the tip is substantially non-conductive and includes a plurality of conducting portions.

51. (Previously presented) The surgical apparatus of claim 50, wherein the tip further comprises a plurality of non-conducting edges and the plurality of conducting portions are configured as line segments disposed between the plurality of non-conducting edges.

52. (New) A surgical apparatus, comprising:

a cannula, the cannula defining at a distal end thereof an opening;

a drive interface;

an electrical interface; and

a surgical tool including a shaft and a tip, the tip located in the opening and including a conducting portion and one or more cutting edges, wherein all the cutting edges on the tip are non-conducting, the shaft contained within the cannula and the shaft mechanically and electrically coupled at a distal end to the tip, and at a proximal end, to the drive interface and the electrical interface, and the drive interface producing a surgical motion of the tip, and the electrical interface producing a cauterizing action at the conducting portion of the tip.

53. (New) The surgical apparatus of claim 52, wherein the conducting portion and a first edge of the one or more cutting edges are disposed relative to each other on the tip such that the surgical motion of the tip brings the conducting portion into contact with a portion of tissue after bringing the first edge into contact with the portion of tissue.

54. (New) The surgical apparatus of claim 52, wherein the one or more cutting edges includes a first edge and a second edge, with the conducting portion disposed between the first edge and the second edge.

55. (New) The surgical apparatus of claim 1, wherein the conducting portion and the non-conducting edge are disposed relative to each other on the tip such that the surgical motion of the tip brings the conducting portion into contact with a portion of tissue after bringing the non-conducting edge into contact with the portion of tissue.

56. (New) The surgical apparatus of claim 1, further comprising a second non-conducting edge with the conducting portion disposed between the non-conducting edge and the second non-conducting edge.

57. (New) The surgical apparatus of claim 1, wherein the tip further includes a second non-mechanically-cutting conducting portion.

58. (New) The method of claim 45, wherein providing the instrument comprises providing an instrument further including a second non-conducting edge, with the conducting portion disposed between the non-conducting edge and the second non-conducting edge.

59. (New) The method of claim 45, wherein cauterizing the portion of tissue comprises coagulating the portion of tissue.

60. (New) The method of claim 45, wherein producing the surgical motion brings the conducting portion into contact with a portion of tissue after bringing the non-conducting edge into contact with the portion of tissue.